

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 1 028 395 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
16.08.2000 Bulletin 2000/33

(51) Int. Cl.⁷: **G07C 5/08**(21) Application number: **00101437.2**(22) Date of filing: **25.01.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Simonazzi, Giuseppe**
42100 Reggio Emilia (IT)

(74) Representative: **Lecce, Giovanni**
Dott. Giovanni Lecce & C. S.r.l.
Via G. Negri 10
20123 Milano (IT)

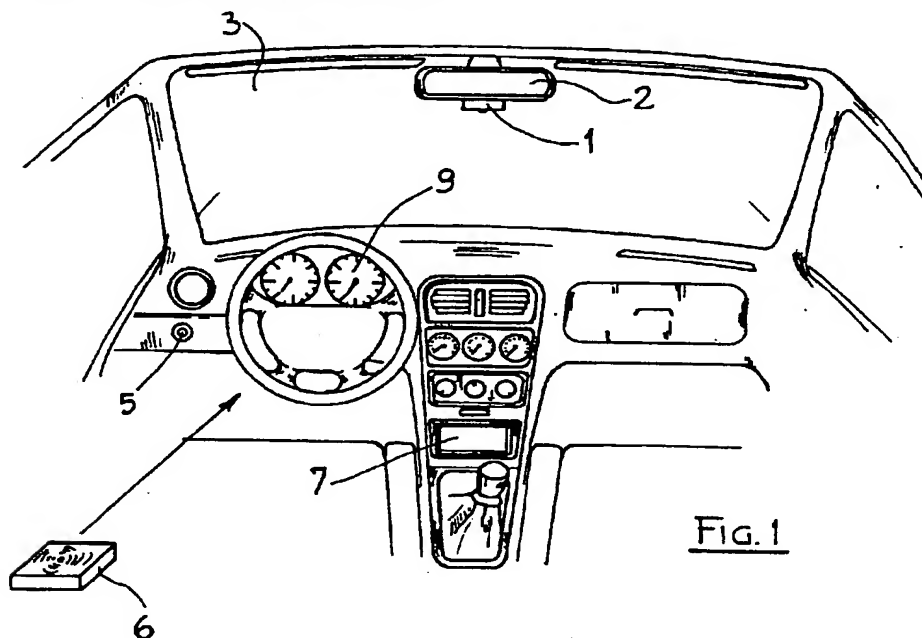
(30) Priority: **09.02.1999 IT RE990019**

(71) Applicant: **Meta System S.p.A.**
42100 Reggio Emilia (IT)

(54) Device for the temporary and/or permanent recording of sudden events

(57) On a vehicle at least a miniaturized camera (1) is installed that has a field of view at least equal to that of the driver. When the vehicle is running, the camera records and stores (4) the images that appear before it for a prefixed period of time, after which said images are canceled from those taken after a subsequent period of

equal duration, and so on. The cycle repeats during the running of the vehicle and stops only if an external event occurs that blocks its working. When the vehicle is parked, said device can be used as an anti-breaking means.

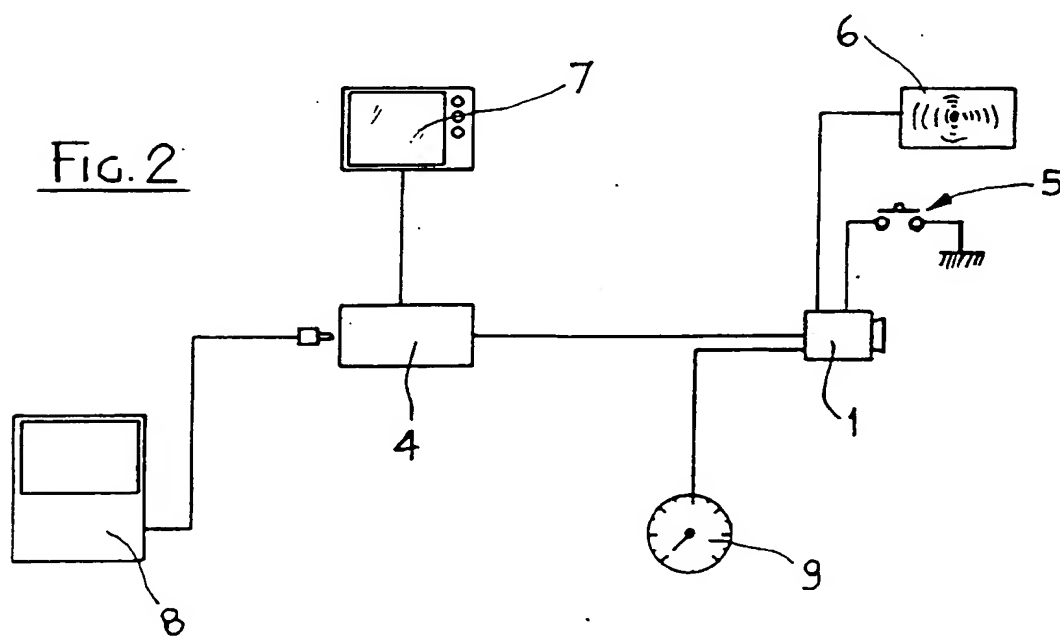
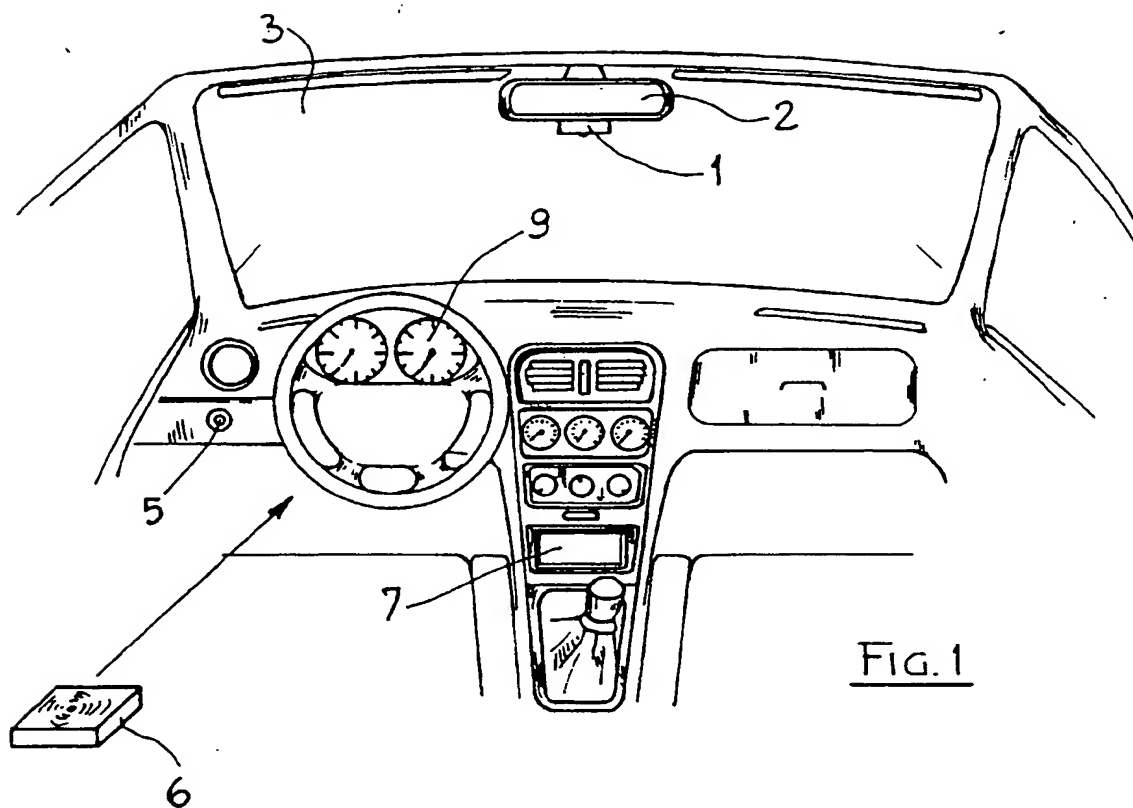
**Fig.1****EP 1 028 395 A1**

caused by the ignition of the dashboard and the interruption obtained by a manual operation through switch (5) or an automatic action of a sensor (6) that senses the anomalous behavior of mobile means, or also: both operating depending on the movement of the mobile means, as said, or during the parking of said means, with ignition through a switch.

5. The device for the temporary and/or permanent recording of sudden events according to claims 1-4, characterized in that it comprises one or more miniaturized cameras (1) one of which is placed behind the internal rearview mirror (2) of a vehicle, with a field of view corresponding to that of the driver through the windshield (3). 10 15
6. The device for the temporary and/or permanent recording of sudden events according to claims 1-5, characterized in that it comprises one or more miniaturized cameras (1) one of which has a field of view related to the rear window or the back of a vehicle, either associated or non associated to another camera located behind the internal rearview mirror (2). 20 25
7. The device for the temporary and/or permanent recording of sudden events according to claims 1-7, characterized in that it can be associated to, and capable of storing the speed of movable means through, connections with onboard instruments, and of providing the stored images with further data on the running and the state of said movable means, said data coming from sensors present onboard or to be installed onboard, in particular time indications of the date and the hour. 30 35
8. The device for the temporary and/or permanent recording of sudden events according to claims 1-7, characterized in that it comprises one or more miniaturized cameras (1), at least one of which has a field of view in the inside of the vehicle and whose recording is started off by the activation of an anti-breaking alarm and the images concern the breaking attempt. 40 45
9. The device for the temporary and/or permanent recording of sudden events according to claims 1-8, characterized in that it comprises one only miniaturized camera (1), with the associated memory (4), that can execute two functions: of external control of the movement of mobile means and of breaking internal recording. 50
10. The device for the temporary and/or permanent recording of sudden events according to claim 1-9, characterized in that it comprises two or more miniaturized cameras (1) coupled to one only device for 55

recording the images and the possible sounds.

11. The device for the temporary and/or permanent recording of sudden events according to claim 1-10, characterized in that the recorded images, with or without sounds, are visualized by a display by means of monitors present onboard of the mobile means or through special devices supplied in concession to bodies such as installers, Traffic Police, insurance companies.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 10 1437

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|--|---|---|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
| X | WO 96 00957 A (SISTEMI PER L INTELLIGENZA ART ;GARDIN FRANCESCO (IT)) 11 January 1996 (1996-01-11) * abstract; claims; figures * * page 4, line 5 - page 11, line 25 * | 1-5,9,10 | G07C5/08 |
| X | GB 2 268 608 A (NORM PACIFIC AUTOMAT CORP) 12 January 1994 (1994-01-12) * abstract; claims; figures * * page 5, line 7 - page 11, line 14 * * page 12, line 16 - page 13, line 18 * * page 14, line 16 - page 18, line 2 * | 1,2,5-7,9-11 | |
| X,P | EP 0 947 963 A (SARTI ARIANNA ;SARTI MARCO (IT); SARTI MARZIA (IT)) 6 October 1999 (1999-10-06) * abstract; claims; figures * * column 2, line 38 - column 6, line 8 * | 1-5,7-9 | |
| A | WO 95 28783 A (PRIMA FACIE INC) 26 October 1995 (1995-10-26) * abstract; claims; figures * * page 7, line 25 - page 11, line 10 * * page 12, line 13 - page 17, line 9 * | 1-11 | TECHNICAL FIELDS SEARCHED (Int.Cl.7) G07C |
| A | WO 88 09023 A (SZABO VIKTOR) 17 November 1988 (1988-11-17) * abstract; claims; figures * * page 2, line 37 - page 13, line 2 * | 1,5-9,11 | |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 16 June 2000 | Examiner Meyl, D |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 10 1437

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-06-2000

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|--|--|
| WO 9600957 A | 11-01-1996 | IT 1271654 B AU 2628495 A | 04-06-1997 25-01-1996 |
| GB 2268608 A | 12-01-1994 | NONE | |
| EP 0947963 A | 06-10-1999 | IT VA980006 A | 04-10-1999 |
| WO 9528783 A | 26-10-1995 | US 5497419 A CA 2188250 A EP 0761051 A US 5646994 A | 05-03-1996 26-10-1995 12-03-1997 08-07-1997 |
| WO 8809023 A | 17-11-1988 | NONE | |

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82